

Puget Sound Partnership Science Panel  
Meeting Summary

March 10 & 11, 2009

WWU, Huxley College of the Environment, Bellingham

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**DAY 1**

Science Panel Members Present:

- Joel Baker
- Guy Gelfenbaum
- Robert Johnston
- Jan Newton
- Timothy Quinn
- Frank Shipley
- John Stark
- Usha Varanasi
- Katharine Wellman

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*It is intended that this summary be used along with notebook materials provided for the meeting.  
A recording of this meeting is retained by the Puget Sound Partnership as part of the formal  
record.*

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Action Items:

- Approval of August 6 & 7, 2008, and September 16 & 17, 2008, meeting summaries

Meeting Summary:

- Panel Basics
- Puget Sound Science update
- Strategic Science Plan revisions
- Puget Sound Georgia Basin Conference follow-up
- Spatial Analysis Coordination discussion
- Regional Risk Analysis Approach presentation
- Implementing the Strategic Science Program discussion
- Puget Sound Partnership Agency update
- Performance Management and State of Sound update
- Status and Trends Monitoring briefing
- Washington Academy of Sciences introduction

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**CALL REGULAR MEETING TO ORDER – Joel Baker, Chair**

Science Panel Chair, Joel Baker, opened the meeting at 10:05 a.m. He asked Panel members to introduce themselves because we had a large audience of students and other interested parties.

## **PANEL BASICS**

### *Welcome*

Dean of Huxley College for the Environment, Brad Smith, welcomed the Panel to the campus. Dean Smith explained how this area is connected to Puget Sound and how the college wants to be a good partner with the Puget Sound Partnership. He then provided an overview of Western Washington University.

### *Review Agenda*

The agenda for the two-day meeting was reviewed and approved.

### *Approval of Meeting Summaries*

Tim Quinn **MOVED** to accept the August 6 & 7, 2008 and September 16 & 17, 2008 meeting summaries. Jan Newton **SECONDED**. Panel **APPROVED** the August 6 & 7 and September 16 & 17, 2008 meeting summaries as presented.

## **PUGET SOUND SCIENCE UPDATE**

Mary Ruckelshaus reviewed the draft Puget Sound Science Update outline and noted that once she receives Science Panel agreement, she will ask the Leadership Council for its approval.

The Panel and Mary discussed the wiki concept and how this would look on the web page. Scott Redman noted his understanding that this document would be the centerpiece of the science web page with placeholders for additional products coming later.

Mary's plan is to start the page with the Puget Sound Science Update outline and launch the first two or three sections by April 2010 and provide the schedule for posting additional sections. She does not want to mix the peer-reviewed sections with non-peer reviewed information. The idea is to keep this information updated. The Panel will need to figure out the update process and where to keep archived information. This may be moving into new territory with the need to have both archived and new information on the same page. This will be challenging because of the amount of work and resources required.

Jan Newton suggested starting with a physical document that staff could convert to the Web site format. This would provide a hard copy archive document.

She also suggested posting sections 1 and 2 the first year and sections 3 and 4 the second year with annual updates in an overlapping sequence.

Mary likes that idea. Additionally, she wants it to be obvious what has been "peer reviewed" and what is "existing" information.

The Panel discussed staging of the various sections and time for completing the first version. The current thinking is:

- Stage the release of sections
- Start with section 2
- Sections 3 and 4 will not be done before spring of 2011 so need a parallel process to inform the Leadership Council on changes for the Action Agenda
- Need to make sure the next version of the Action Agenda has the science input and review and policy interface understood

Mary reminded the group that the first thing to do is identify authors. She explained there will be a team of authors for each of the four sections – she envisions a big name in the science field (a “hero”) who will create a team that would include up and coming scientists as well as other known scientists.

Bob Johnston suggested the Partnership commission a journal for the Puget Sound science or at the Salish Sea level. This would be a way to get the information out.

Panel members would like to see this at some point but are concerned with the people power needed. They decided to keep the focus on the Puget Sound Science Update and then commission a journal at a later date.

The Panel agreed to:

- Start with section 2
- Start process to identify lead authors
- Decide timeline for getting the content out by using the Science/Policy Workgroups
- Use timeline as outlined in the handout for section 2a and b then work through 1, 3, & 4 on the same timeline just one year out – actually 5 different groups
- Identify the 5 “heroes” and talk collectively with them so they see the scheme but let them work on different timelines
- Send Mary ideas for “heroes”

The Panel then turned the discussion to the Science Policy Workgroups and need to get these groups in place with staff leads identified. The Panel will discuss this with new Partnership Deputy Director Lynda Ransley when she is in attendance on day two of this meeting.

## **STRATEGIC SCIENCE PLAN**

Scott Redman provided a preamble for this discussion explaining that the experiment in using Google docs as the editing and change tracking tool was not successful this time although it may work better once we have more experience using this tool.

Jan Newton and the section leads reviewed the Strategic Science Plan, section by section. The Panel discussed changes and revisions to the document including:

Section 3 – include both current science and the ongoing need for additional studies and research. Frank Shipley will add a sentence to the “do not delay” paragraph and revisit section 1 to make sure it is clear there also. Trina Wellman will assist Frank on this section to include the human dimensions side of things. Joel suggested changing the title.

Section 4 – Jan would like to have the Science Panel topic forum leads revise the different subsections. This chapter is currently a combination of topic papers, peer review results, and interview information from Joel and Jan. This section needs to be revised to be the Science Panel’s voice. Jan will provide the original notes from the expert interviews to help with writing this section.

Section 5 – Mary Ruckelshaus, Trina Wellman, and Joel Baker will work on revisions to this section and include the peer review discussion. Section 6 will include the implementation plan.

Section 6 – The group discussed changes to this section and why the Strategic Science Plan shouldn’t include specific information and data. Instead, it should focus more on general information so that it will not become dated. Jan, Scott, and Bob will work on revisions to this section.

Scott and Frank will work together to redraft section 1 to match changes in the rest of the document.

Steps to final version:

- Panel members will work on assignments through March 26
- Revised version will be provided to Panel by March 27
- Conference calls will be scheduled for Friday April 3 and 17 with goal for agreement on public review version at the April 29 work session
- Ecosystem Coordination Board will be briefed on this document at its April 23 meeting
- Month of May will be the public comment period
- Revisions will be made in June with final document ready by June 24
- Present to Leadership Council for approval on July 16 & 17

The Panel will not put this document through a formal peer review process but look at a program review process instead.

## **PUBLIC COMMENT PERIOD**

*Burt Webber, retired college professor*, thanked the Panel for coming to Bellingham. He noted that it is difficult to differentiate between science and policy and it has been a problem for years. He asked if the Strategic Plan is designed to help with science policy issues such as Cherry Point. He provided his comments about the Strategic Science Plan. He noted that there are gaps in historical data that should and could be filled.

*Alan Chapman, Lummi Tribe*, is concerned that the Strategic Science Plan is missing salmon.

## **PUGET SOUND GEORGIA BASIN CONFERENCE FOLLOW-UP**

The Puget Sound Georgia Basin Conference was held on February 9-11, 2009. The Conference addressed both science and policy issues. Attendance was split between scientists and policymakers.

Chris Townsend reported that the steering committee will meet one more time to identify leads for each of the “call to action” items developed at the conference. These leads will coordinate the follow-up and then report at the next conference in 2011.

The desire for a transboundary science panel was identified as one “action.” The Science Panel or some subset of it will be on the transboundary science panel along with Canadian scientists. Canada doesn’t have a parallel science panel but are talking about creating one. Once in place, the Science Panel will need to assist with development of a work plan for this transboundary group.

The Panel members believe that, although having the science/policy linkage was good, there still needs to be a science-based conference - a place for the scientists to come together and discuss transboundary issues. They suggested the possibility of alternating years between science only and science/policy.

Chris will take this suggestion back to the steering committee for discussion in planning the next conference. Another alternative is to have one day be pure science during the conference.

## **SPATIAL ANALYSIS COORDINATION**

Chris Townsend and Mary Ruckelshaus facilitated this agenda item.

### *Watershed Assessments*

The Action Agenda calls for doing watershed characterizations but what this means has not been clearly identified. This presentation is meant to begin discussion on what the assessments should include and level of detail needed.

Peter Gill, Whatcom County planner, provided an overview of the Birch Bay watershed characterization project.

Mary explained how watershed assessments have been completed at a watershed level for the salmon recovery plans. Some were more detailed than others, and most focused on stream flows and temperature. There is also a Biodiversity Council assessment that is focused on biodiversity and upland issues.

The question to the Science Panel is, "What common sets of science-related characterizations would the Panel want included in an assessment?"

Chris discussed how Steven Stanley's process could be used for a Soundwide assessment but a different process would be needed at the watershed level.

The Panel suggested the need to include not only the physical needs, but also the economic costs in protecting or restoring the area. This might also possibly include the value of services provided.

Chris reported that over the next month Partnership staff will do the outreach needed to identify what stakeholders need for characterizations. The scope needs to be provided as part of the National Estuary Program (NEP) funding. This is one of the first meetings discussing this issue and is the first step in deciding what most important to protect and restore in the watersheds because no decisions have been made yet.

Mary suggested Tim and Trina help with the scale for this issue. Tim reported that the Biodiversity Council has a group that has worked on this issue and this discussion is consistent with their mandate. The Biodiversity Council will let Tim know after their meeting on March 12 if they are willing to weigh in on this characterization work.

## **WASHINGTON STATE ACADEMY OF SCIENCES**

Mary Ruckelshaus provided the Panel with a handout outlining the possible roles for the Washington State Academy of Sciences. (See meeting notebook for details.) She asked the Panel to review this document before the discussion with Academy Chair, Gordon Orians, on day two of this meeting.

## **REGIONAL RISK ANALYSIS APPROACH**

Dr. Wayne Landis from the Institute of Environmental Toxicology provided a presentation on his work with risk modeling.

He explained that risk analyses needs to be taken for both the policy and science interface and that integrated ecosystem assessments (IEA's) are really a type of risk analysis.

He urged the need to combine science and policy.

**4:50 p.m. RECESS FOR THE EVENING**

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**DAY 2**

Science Panel Members Present:

- Joel Baker
- Guy Gelfenbaum
- Robert Johnston
- Timothy Quinn
- Frank Shipley
- John Stark
- Usha Varanasi
- Katharine Wellman

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**8:40 a.m. RECONVENED MEETING**

Science Panel Chair Joel Baker reconvened the meeting and welcomed members of the Leadership Council to this meeting. Bill Ruckelshaus introduced new Puget Sound Partnership Deputy Director, Lynda Ransley, to the Panel. Lynda provided a brief overview of her past work.

Joel reviewed changes to the agenda and provided an overview of the first day of the meeting.

**IMPLEMENTING THE STRATEGIC SCIENCE PROGRAM**

For this discussion Joel Baker had the group turn to Section 6 of the draft Strategic Science Plan and Scott Redman had the group also look at the Puget Sound Partnership Science-Policy Work group concept that was shared at the February 19 Leadership Council meeting. (See meeting materials for details.)

Bill Ruckelshaus commended the Panel on the work they have done to date on the Strategic Science Plan. He asked about the timing for the final adoption. Jan Newton reported the plan is to have the final document before the Leadership Council for adoption at its July 2009 meeting.

He also asked about the budget for this Plan. The Panel reported that at this point the budget work will be done around the Biennial Science Work Plan but they could project the science budget needs over the longer term if that is recommended. Bill encouraged the Panel to develop the science agenda budget to go with the Strategic Science Plan.



Bill cautioned the Panel to make sure the “facts” are actual facts so that when people come to the document they get the truth.

*Recap February 26, 2009, Work Session Discussion*

On February 26, 2009, the Panel had a work session. As part of this work session the Panel discussed the science policy work groups. The Panel suggested name changes for the three groups, addition of a “communication” group, and to have three Ecosystem Coordination Board (ECB) representatives rather than the originally proposed two.

Martha Neuman was not clear of the reason for adding a fourth group.

Usha Varanasi explained her reason for suggesting this fourth group. She hears the Partnership say we are communicating but believes the message is getting pushed aside. She believes creation of this work group would elevate the importance of communication.

Trina noted that this would also be a way to think outside the box for the best ways to communicate and volunteered to work with Martha to rewrite the role of the fourth group to better clarify.

It was suggested that the Leadership Council member on the Science Policy workgroup chair the group and the groups meet quarterly. The Panel asked the Council to move forward to populate the various groups so the work can get started.

*Staffing*

The need to create a science team to lead the various efforts has been called out in both the Biennial Science Work Plan and Strategic Science Plan. The Partnership needs to have staff dedicated to these topics and the Panel has discussed various models to do this, including staff loaned from other agencies or developmental assignments.

Lynda noted that she would like to have science staffing needs filled soon but she also needs to cover other agency needs.

Bill Ruckelshaus responded that the Partnership has a problem just like every other state agency. There is not enough budget or staff to do all the work that needs to be done. The Partnership will need to make sure to devote the staff it has to the highest priority issues and think of imaginative and creative ways to get the additional work done.

**PUGET SOUND PARTNERSHIP AGENCY UPDATE**

Martha Neuman provided this update.

- The House has passed a fiscal '09 budget. Funds coming to Puget Sound in the House budget will be distributed through a competitive process. The Senate budget is being finalized.
- The state budget forecast will be released on March 19 and it looks like there will be at least an \$8 billion state budget deficit.
- On March 6, NOAA announced funds available. Project applications will be due April 6.
- Ecology is accepting requests for stormwater treatment projects and those applications will be due on March 13. The Partnership is helping review the applications.
- The Partnership has an assignment to look at existing grant programs and to help coordinate the processes. Bill Ruckelshaus suggested accelerating this review.
- NRCS has some money for floodplain issues.
- The bad news is that there isn't money in the stimulus package for science or monitoring, other than specific projects.
- Joel stated the need for the Science Panel to have its act together for the next federal funding cycle. We also need to get agreements in place with the federal agencies when providing grants to include science and monitoring.

Martha reported the need to have the Action Agenda go through a National Estuary Program (NEP) review. The report will be released March 20 as a supplemental document to the Action Agenda. This document will include a section on how work plans will be developed.

The Panel agreed on the need to better coordinate the funding of priority processes. There is an obligation and opportunity to get it right this time. We need to prevent all the agencies going individually to NOAA and others for funding. The Panel discussed ways to coordinate the science and funds. Tim reminded the group that there is a lot of work to do before the Science Panel will get to a list of science priority projects. We need to have staff available to do the work and to list projects and processes. The Leadership Council needs to make the pitch to the Federal agencies that it is in their best interest to support this process. They could assist by providing staff to work on the various work groups and subcommittees.

Martha believes that Michael Grayum will be the liaison to the Federal Caucus, but staff assignments are still changing.

Martha also shared a written update on the legislative work. (See meeting materials for details.)

Martha noted that staff is starting to work on the implementation plan. It will be discussed with the Leadership Council at its March meeting.

## **PUBLIC COMMENT PERIOD**

No public comment

## **PERFORMANCE MANAGEMENT AND STATE OF THE SOUND UPDATE**

Martha Neuman and Scott Redman led this discussion and update.

### *Indicators*

Martha provided an update on the State of the Sound report and selection of indicators. The team working on the State of the Sound report includes Martha, Scott Redman, Ken Currens, and Mary Beth Brown.

Bill Ruckelshaus noted the need to identify the process of getting to final indicators. Trina Wellman reminded the group of the need to identify human wellbeing indicators.

Scott reviewed the status of and plan to get the indicators in place.

Martha explained that a portion of the State of the Sound information needs to be ready for use during the NEP process. The information might be examples only at this time, there will be more detail by the November release of the State of the Sound Report.

The Panel discussed the timing of the documents and the need to link the adaptive management and budget processes into the production of the State of the Sound.

Bob reported that he went through all the actions in the Action Agenda and then tried to crosswalk back to the goals. Unfortunately some weren't linked to goals, but they would assist in getting to the action. There are some missing indicators so we must build adaptive management into the process. He sent this information to Scott.

Scott noted this is now covered in bin 'F' of the chart Martha provided.

Scott is the lead on the logic model and indicators. We will be able to report on indicators from last State of the Sound. Scott reported that NOAA is close to hiring a person to work on the Phase 2 indicators and Bill stressed the need to accelerate this process. The group discussed the current status of indicators and how to move forward with this work.

Diana Gale asked if we could pick indicators now and then change as we find out more. The group agreed not to change indicators often since it takes a lot of time and staff work to develop a new data set. They also agreed that when using the indicators for reporting to the public, we shouldn't change them unless absolutely necessary because it can be confusing to the public. Scott noted the need for a way to adjust the indicators as time progresses. Joel believes that adding missing indicators is different from

replacing existing indicators. Phase 2 is where the indicators will be better refined. The Science/Policy Workgroup needs to select what indicators will be used.

### *Ecosystem Targets*

At its December meeting, the Panel had discussed setting targets and benchmarks by June, but they are not sure this is reasonable timing for staff. The Panel discussed the possibility of setting intermediate targets. There are some targets that are clearer and we could set intermediate ecological targets that would be close to the ultimate goal. This chart needs to be completed but could be filled in later with additional information.

The Panel discussed reasons why we wouldn't make the deadline. Is it a lack of staff and time, or a lack of knowledge to get there? Some of the answers will be scientific and others will be policy, so getting the Science/Policy workgroups together will be the first step in getting to the answers for this.

Joel reported that Gordon Orians is one of the experts in indicators work so we need to tap into this expertise. Gordon will be presenting later in this meeting. From this discussion the Panel's recommendation is to have the Science/Policy workgroups formed and asked if there are indicators they believe are ready to move forward. These draft indicators will then set the stage for the phase 2 indicator work that will be starting within the next month.

### *Monitoring*

Ken Currens reported where the Partnership is with monitoring and asked the Panel for clarification of his assignment and the sideboards. He is focused on status and trends monitoring. He also asked how the Science/Policy workgroups interface with the monitoring program.

Joel sees the workgroups as defining the questions for the technical groups to get the answers. The three groups are the "what" and the technical expertise is the "how".

Ken asked if he should wait for the Science/Policy workgroups before moving ahead. Joel suggested Ken work on the status and trends assessment questions, then the Science/Policy workgroups will bring additional questions on status and trends monitoring.

Ken reported that the stormwater and the salmon groups are working on assessment questions related to stormwater and salmon.

Joel noted the need for full time staff to work on monitoring, but in the short term, we need to start working on this.

He asked how to get monitoring built into the restoration programs. This has been a question before the group for quite some time. Can the Partnership require a portion of

project funding go toward monitoring? Many times monitoring is not an allowable cost, so we need to change requirements and thinking about monitoring needs in order to reach our long-term goals.

#### *Intermediate Outcomes*

Martha Neuman is the lead on intermediate outcomes work and suggested taking this to the Science/Policy workgroups to identify which benchmarks to use.

Mary Beth Brown explained the differences between the intermediate outcomes and benchmarks.

The Panel and Leadership Council members Ruckelshaus, Kongsgaard, and Gale discussed who is responsible for what portion of the intermediate outcomes.

#### *Adaptive Management*

It was reported that David St. John is working on the adaptive management program. A handout was provided to the Science Panel outlining David's workplan. (See meeting materials for details.) The Panel will review and provide comments to Martha or the Science/Policy workgroup on performance.

#### *Data Management*

The Partnership needs to have a data system and staff is working on this. We need to have collaborative tools in place. Joel provided an overview of a data management system Web site he was familiar with.

Bob asked if the information management steering group is the same as the information management work group outlined in the Strategic Science Plan and asked which Science/Policy workgroup would look at this. Mary Beth responded that she doesn't believe this has been discussed among staff yet.

Joel asked Scott to send the data management systems links to the Science Panel.

#### **PUBLIC COMMENT**

*Stewart Toschak, NOAA Fisheries Science Center*, followed up from comment heard during the morning discussion on not knowing what projects the federal agencies are working on. He reminded the Panel that in January of 2008 a request went out from the Partnership to state, federal, local, and tribal governments requesting information on programs and projects they are working on. He can't speak for the other groups but the federal agencies provided a lot of information. If this was looked at it would give a better view of what is happening.

## **WASHINGTON STATE ACADEMY OF SCIENCES**

Joel introduced Washington State Academy of Sciences (WSAS) President, Gordon Orians, and provided a background on the work of the Academy and how it links with the Science Panel.

Before Gordon put on his WSAS hat, he discussed the adaptive management process discussion. He believes the process presented is passive and suggested a way to provide a powerful case to go forward with.

As the WSAS representative, he explained what the WSAS is currently doing. He reported that this group isn't designed to be a policy entity and doesn't do original research but reviews and assesses existing information.

There is a need to populate the academy and they are looking at how to do that since the scientists who were nominated to the national academy did not provide a good distribution of disciplines.

There is an office in Olympia on the second floor of the IBM building. They hope to get at least a part-time Executive Director for this office.

All committee members will serve pro bono except for travel expenses.

He asked what the Science Panel foresees that the Academy might help with. One suggestion was help with indicators.

The Panel asked who would compose a mandate, the Science Panel or the academy. Gordon responded that the request would come from the Panel and then the Academy would work with them to develop the process, plan, and budget for the project.

The question was raised on how the Academy will handle issues that have a policy component. Gordon replied that the Academy will not answer policy questions but might give three or four options, with "if you do this then this might happen." It would all depend upon the way the question is presented.

### *Indicators*

Dr. Orians is very involved with indicators and has written (or has assisted in writing) several reports about indicators. He stated he doesn't believe the Science Panel is seriously engaged with indicators yet. He provided several warnings:

- The first trap is to think indicators are simple – which they are not. Indicator development is very difficult.
- The second trap is that we think large is beautiful – it's great to have lots of indicators. We need just enough indicators to capture the essence.
- Don't give grades –Instead, provide the "state of" and let others give the grades.

- Don't be sucked in by 2020 – Some indicators are needed now but we don't need them all.
- Fix indicators so they can be changed along the way when there is new or additional information.
- Balance the indicator reporting schedules – Decide how often various indicators need to be reported. Some might be once every five years while others might be every year.
- Baseline –Decide what is the baseline. Decide what the indicator is designed to do.

Bill Ruckelshaus asked what Gordon would suggest for Puget Sound. Gordon responded that he would not use the health of Puget Sound as the indicator since that is giving a grade. We need to be careful not to make a judgment about such things as eelgrass because it might devalue other issues.

Ken Currens gave an example from the Biodiversity Council meeting where they decided to not go with the full DPSIR models. Instead, they decided that they wanted to have indicators that give early warnings. This is a discussion that the Partnership hasn't had yet.

Frank asked how to distinguish between benchmarks and indicators, to which Gordon replied that the right set of indicators can be used for all these uses; there are decisions to make before going into the phase 2 work.

Usha heard him say that one should continue to measure several things and those numbers are neutral. However, someone has to put value to the indicators. Gordon replied that we must make some value judgments but you need to figure out how to have the conversations. Gordon added that part of the long-term indicator selection includes the education of why this indicator was selected.

Guy Gelfenbaum had a two-part question: 1) In keeping the number small, do you differentiate between what you need to understand and what you measure? Gordon answered that we can measure many things but only use one indicator, and 2) What about indicators that are rolled up? Gordon answered that we will store data in the least aggregated way so if anyone looks at any level of detail we have the purest data. We need to decide what needs to be aggregated for the whole Sound and what needs to be at a finer detail.

Gordon reminded the group that with indicators you need to know your tradeoffs. He noted that the Academy might be able to be of service in indicator development.

Jan Newton concluded that this was a very refreshing discussion on indicators and thanked Dr. Orians.

**3:25 p.m.    ADJOURN**

Approved  
Joel Baker, Science Panel Chair

Next Regular Meeting:    May 7 & 8, 2009  
   USGS Sand Point